BEFORE THE
POSTAL RATE COMMISSION
WASHINGTON, D.C. 20268-0001

POSTAL RATE AND FEE CHANGES, 2000	)	DOCKET NO. R2000-1

REBUTTAL TESTIMONY OF CHRISTOPHER D. KENT ON BEHALF OF THE NEWSPAPER ASSOCIATION OF AMERICA

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August 14, 2000

I. Overview of Testimony

I am Christopher D. Kent, President of FTI/Klick, Kent & Allen, an economic and financial consulting firm with offices at 66 Canal Center Plaza, Suite 670, Alexandria, Virginia 22314. Since 1974, I have been regularly involved in calculating revenues, costs, lost profits and project valuations associated with a wide variety of industries and endeavors. During the last 15 years my work has been heavily focused towards rate proceedings in the railroad and telecommunications industry. Virtually all of the studies I have directed/performed have involved the development and/or use of complex computerized cost models that make extensive use of detailed engineering and operating input data.

During the period between about 1990 and 1994 I directed numerous projects my firm performed for the Postal Service. These projects ranged from a feasibility analysis of a USPS National Control Center, to operating efficiency studies at distribution centers, to examining the viability of an integrated management system. My qualifications are appended to this testimony.

I am filing testimony in the year 2000 postal rate hearing, Docket No. R2000-1, on behalf of the Newspaper Association of America ("NAA"). The purpose of my testimony is to respond to testimony submitted by witnesses Keith Hay and Antoinette Crowder on behalf of MPA et al. Specifically, I compare and evaluate the methodological constructs of the Engineered Standards ("ES") database developed and presented by USPS witness Lloyd Raymond and the

1986 Street Time Sampling ("STS") survey, which has been used to develop time proportions for city carriers in postal rate cases since Docket No. R87-1.

In considering whether to replace an older study such as the STS with the newer ES database, it seems to me that the most important question has yet to be fully addressed in this proceeding. Specifically, is the ES study an improvement from the current standard?

While the STS study lacks much of the underlying data that would enable an all-inclusive critique, numerous comparisons to the ES study can shed light on their inherent similarities. Where methodological differences exist between the two studies, the ES study generally appears to be superior to the STS study. Furthermore, criticisms that have been leveled against the ES study also appear to apply to the STS study. To that end, I will demonstrate that the ES database makes important improvements to the STS database with more current data that, in my opinion, a more preferable basis for developing carrier costs. Consequently, I believe that the ES data should be used by the Postal Rate Commission in developing its estimates of the costs associated with street carrier activities.

II. Comparison of ES and STS Methodologies

A. Summary of the ES and STS studies

USPS Witness Lloyd Raymond presented testimony regarding the development of the carrier street activities based on data collected during the Engineered Standards/Delivery Redesign project that extended from the fall of 1996 to the spring of 1998. From this database, Mr. Raymond extracted

information related to carrier street activities and provided it to USPS witness Donald Baron. According to Mr. Raymond, "the objective of the Engineered Standards was to collect actual (emphasis added) activities of the city letter carrier and to develop engineered methods and time standards to establish a workload managing system."[1]

The Street Time Sampling ("STS") survey was introduced by USPS witness Peter Hume in Docket No. R87-1 in order to develop time proportions for city carriers in postal rate cases. It was adopted by the Postal Rate Commission and has since been relied upon to derive time proportions. To develop the STS database, the Postal Service had street carriers record their own activities. That data was later provided to analysts to be entered into a database and then used to develop time proportion calculations. Incidentally, witness Hume argued in R87-1 that the 1986 STS survey should replace its predecessor because it provides an updated, larger sample and successfully overcame many former data deficiencies.[2]

B. *Survey Designs*

While much criticism has been leveled at the fundamental design characteristics of the ES study, the underlying methodology is largely comparable to the STS study. First, each study sampled carrier activity at specific "snap-shots" in time. Second, each study relied upon a tally-based

[1] Direct Testimony of Lloyd Raymond on behalf of the USPS, R-2000-1 at 5.

[2] Direct Testimony of Peter Hume, USPS-T-7, Docket R87-1 at 5, 8-9.

sampling system that required an after-the-fact assignment procedure to allocate the tallies to time categories.

Specifically, the STS study collected carrier activity data via a tally-based work-sampling system. The self-reported data from the carriers were later recorded by a trained data collector, and ultimately assigned to time proportions.[3] The ES study used an electronic tally-based system to record the carrier's activity, and took advantage of technological improvements to rely on an electronic scanner to record the various carrier activities. A post-processing methodology was employed to convert the tally to the proper time category to allocate carrier street-time costs.

While some intervenors have criticized the ES study[4] in this regard, the bottom line is the STS methodology also used an after-the-fact assignment of observed tallies to the cost categories.

C. Characteristics Associated with the STS and ES Studies

Table 1 presents a summary of the characteristics of the ES and STS studies. Particularly noteworthy are the facts that the ES database includes a larger sample size, a longer survey period, and a greater recording frequency.

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[3] Id. at 12.

[4] See Hay Direct Testimony at 12-13. Specifically, witness Hay postulates that since the enumerators did not know the post-survey questions, they couldn't recognize the weaknesses or exercise any quality control.

Table 1[5]
Comparison of ES and STS Studies

1. Survey Period

In this proceeding, the ES study has come under fire for its lack of route level distribution across the months of the year. [6] Yet the STS survey was conducted over a much more limited time frame, from July – October 1986, and contains significantly less diversity over the months and seasons. The three-month period in which the STS sample was completed provides little seasonal and monthly differentiation. The ES study extended over an eighteen-month period, from fall 1996 to spring 1998. Specifically, while 44% of the ES routes occur during a 3-month period, 100% of the STS routes were sampled during a 3-month time frame. Even witness Crowder stated in her cross examination that

[5] Raymond Direct Testimony at 3, 7 and 14; Hume Direct Testimony, USPS T-7, Docket R87-1 at 12, USPS-7B page 2 and 9, USPS-7B Figure B-5 and Figure B-6. The 53 ES locations, detailed in LR-I-159, may be reduced to 39 if one condenses multiple CY codes for commonality in the first 3 digits of zip codes.

[6] Specifically, the large percentage of routes sampled during the months of October – December See Crowder at 28.

she would "want a survey that was representative of the year."[7] The ES study therefore has a much better time differentiation than the STS study.

As Table 1 indicates, the ES database contains many more tallies than the STS study, with approximately 39,000 and 7,100 tallies attributable to the ES and STS databases, respectively. Furthermore, this disparity is even larger when the 1,100 STS records that were dropped from the STS database because of "missed" or "no-call lunch" are eliminated from the total STS tallies. Ultimately, the STS study drops 15% of the tallies, while the ES database only dropped 4% that were personal, break or lunch observations.[8]

The STS database does contain more routes than the ES study. While in isolation this is in its favor, on balance it is not enough to make the STS preferable to the much more current and much larger ES database. Furthermore, the STS database lacks route diversity, an area where some intervenors have criticized the ES study.[9] Specifically, 5,321 out of the 7,100 STS tallies, or nearly 75%, fall within two of the eight route types (residential curb and mixed curb) which today comprise only 33 percent of all city routes.[10] By comparison, 83% of the ES routes fall into two route types (residential loop and residential curb) that comprise 81% of the total USPS system routes today.

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[7] Cross Examination of Ms. Crowder at 16326.

[8] See Baron SAS log file in USPS LR-I-159 Line 157 and the note immediately following line 173.

[9] See Crowder at 29.

[10] Hume Direct Testimony, Docket No. R87-1, USPS-7B at 13. Witness Baron lists the current number of city routes by route types in his response to MPA/USPS-T12-6.

According to Witness Hay at page 8 of his testimony, "Too large of a sample may require the expenditure of too many resources while adding little extra information beyond what could be obtained from some smaller yet useful sample size." While this is an interesting theoretical concept, it contradicts the vast majority of my consulting experiences, which have been driven largely by the desire/need to obtain as much data as possible. That is certainly what the ES study did and I believe that it is more likely to produce accurate results.

2. Timing of Reporting/Recording

As presented in Table 1, the ES study sampled street carrier activities far more frequently than the STS study. The ES study relied upon observations taken every 6 minutes, when a beep would signal the observer to record the carrier's activity (and time). The STS study relied upon three random signals over the course of a route-day, notifying the carrier to record his then current activity. There is no question that the ES methodology provides a more systematic and frequent review of the carrier activity than the STS methodology. The ES methodology therefore should provide a broader and therefore more representative depiction of the street carrier activities. A sampling of only three times over the course of a day results in greater uncertainty and variation surrounding the street carrier activities that are actually captured in the tally observations.

On its face, it is clear that certain activities could be lost or hidden among the large un-surveyed portion of the time period of the STS study. This can be clearly illustrated by considering the number of observations that would occur

over the course of a typical 8-hour route day. While the STS study captured three "snap-shot" street carrier activities, the ES study would accumulate approximately 46 observations from that same period.[11] The relative value of the significantly greater recording frequency is that the ES study collected a large set of observations, thus yielding a more detailed picture of a carrier's day. It therefore is preferable to the STS database.

3. Reporting Choices

The STS study relied upon multiple-choice cards for the carrier to observe his activity and assign the time to the appropriate category. Generally speaking, the carrier identified whether he was either moving between two or stopped-at one of nine locations. Under the ES study methodology, 1,350 combinations resulted from the location and activity choices that were available to record what the street carrier was performing at the observed time.

While the number of activity categories is large, it was organized with a tiered approach, similar to a web content provider such as Yahoo!, to simplify the reporting process. While Yahoo! is likely to have millions of ultimate options/categories for one to peruse, its home page provides only a fraction of those choices presented in a simple and clear manner. Once you select an initial category, you are again provided with more options to select from. The multiplier effect of having many choices at different category levels ultimately does provide a large number of combinations, but is guided in a manner that eases the task.

[11] The 46 recordings per day is calculated by dividing 39,046 tallies by 844 route days. This approximates 5 hours a day that a carrier was out of the office.

Similarly, the step-by-step process associated with the ES study's recording choices provides clear direction to the recorders and a multitude of data for everyone to analyze.

Ironically, the ES study is criticized because it provides too much detail.[12] The notion that such detail leads to confusion, particularly regarding the location and activity definitions, simply does not make sense. Ultimately, more accurate choices are better than less. Any minimal problems stemming from confusion because there are "too many choices" is more than offset by the benefits from having a greater number of, and more specific, observations.

The fact that other intervenors have been able to analyze the ES data in so many different ways at a very microscopic level demonstrates the extensive detail provided by the ES database. While this has enabled some intervenors to inundate the proceeding with criticisms (such as allegedly misassigned tallies), it illustrates a level of detail that is largely missing from the STS study. Simply put, it is the absence of detailed STS data that insulates it from such attacks. I find it ironic because my conclusion is that the lack of detailed data in the STS study should be considered a weakness.

Furthermore, the purported errors from misassigning activities are small in scope and effect. Witness Crowder states that Mr. Raymond misassigned a number of tallies to the wrong cost categories, particularly load. She identified the codes indicating such misassignment in her response to interrogatory

[12] See Crowder Testimony at, e.g., 14-16.

NAA/MPA et al.-T5-1. Upon cross-examination, however Ms. Crowder conceded that if the total misassigned tallies were approximately one-half of one percent, it would not have a material effect on the time proportions derived from the ES study.[13] And, in fact, she later indicated that only 233 tallies, which are 0.6 percent, contained those suspect combinations of codes.[14]

III. Data Compiled for the ES Study is More than Sufficient for Ratemaking Purposes

As discussed above, the STS study itself is vulnerable to many of the criticisms thrown at the ES study. Furthermore, the ES study by definition is a look at current carrier activities, with data collected over a much longer period of time. Therefore it should be considered superior to the STS study.

In this proceeding some intervenors have attempted to suggest that Mr. Raymond's study, and therefore the results of his study, do not meet a heightened standard required for ratemaking.[15] While I do not fundamentally disagree with the components of these purported standards as a theoretical "wish list," I respectfully suggest that the STS study by that same measure also falls far short of meeting the criteria set forth by the intervenors and criticisms of the ES study. Most importantly, the ES study is a more current, more extensive

[13] See Crowder's cross-examination at 16305.

[14] Response of Magazine Publishers of America, Inc. Witness Crowder to Questions Raised at the Hearing (July 27, 2000).

[15] See e.g. "Direct Testimony of Antoinette Crowder" at 6-7; "Direct Testimony of Keith Hay," virtually in its entirety.

sample of carrier activities that was surveyed over a longer period of time (1996, 1997 and 1998) than the 1986 STS study.

Professor Hay specifically comments on the use of ES data for ratemaking in his testimony. While he understands the importance of ES studies to determine time and motion aspects of route performance, he believes the data acquisition methods applied in the ES study are quite different from those used for, and often inappropriate for, ratemaking purposes. [16]

As mentioned earlier, my firm manages data very similar to the ES data in ratemaking and rate reasonableness proceedings. In fact, it is reasonable to say that we routinely receive this type of data collected by Mr. Raymond's group and submit it to regulatory agencies such as the Federal Communications Commission and the Surface Transportation Board, which ultimately rely upon such cost data for ratemaking. In my opinion, the ES data compiled by the ES study is more than sufficient for ratemaking purposes.

IV. Conclusion

Based upon my experience and the evidence in hand, the ES data is a reasonable and much more current source to use for ratemaking purposes than the STS data. As discussed before, the STS study itself was largely accepted because it was a more current and larger sample of carrier activities, and overcame various shortcomings of the previous "old" street carrier cost data. The methodological design, the number of tally observations, recording

[16] Hay Direct Testimony at 4-5.

frequency, and current sampling lead me to conclude that the ES data is superior to STS data and should therefore replace it.

For all of these reasons, it is hard for me to imagine a reason the Commission would forego an opportunity to improve the data it relies upon for its ratemaking. In summary, the ES database provides an abundance of current estimates of street carrier activities and, in my opinion, is therefore a substantial improvement over the 1986 Street Time Survey currently relied upon by the PRC to develop street carrier time proportions.

STATEMENT OF QUALIFICATIONS

OF

CHRISTOPHER D. KENT

My name is Christopher D. Kent. I am President of Klick, Kent & Allen, a wholly-owned subsidiary of FTI Consulting, Inc. My office is located at 66 Canal Center Plaza, Alexandria, Virginia 22314.

I hold a Bachelor of Arts degree from the University of Virginia. In 1970 I joined Western Electric, Inc. as a Management Trainee in its "High Risk-High Reward" program. During the next six years I was promoted through various levels in the production, production scheduling and costs and forecasting departments.

Since 1977, I have been involved in various aspects of transportation including traffic analyses, economic studies including costs and revenue analyses, railroad valuations, and the development of railroad operating plans, railroad facility plans and rolling stock requirements.

In 1977, I joined Conrail as Project Manager and worked primarily in assisting the Operating Department in optimizing fleet availability.

In 1978, I was employed by the United States Railway Association as the Manager of Equipment and Facilities. I was subsequently appointed Chief, Equipment and Facilities, Rail Asset Valuation, in the Office of General Counsel. In this capacity, I supervised a staff of in-house professionals and outside consultants in developing the equipment, maintenance of way and operating evidence submitted by the U.S. government in the valuation proceedings before

the Special Court created under Section 303(c) and 306 of the Regional Rail Reorganization Act.

In 1980, I formed Kent Associates, a consulting firm dealing with operating, transportation and marketing issues for various clients. Kent Associates was affiliated with the Washington Management Group and I served as Vice President of that firm.

In 1984, I joined the economic consulting firm of Snavely, King & Associates, Inc. as a Senior Consultant. While with that firm I participated in numerous studies related to Section 229 proceedings and anti-trust litigation.

In 1987, I founded Klick, Kent & Allen, Inc., an economic and financial consulting firm. I served as a Principal of KK&A until its acquisition by FTI Consulting, Inc. in June 1998.

I have presented testimony in the valuation proceedings before the Special Court, the House of Courts of Justice Committee of the Virginia General Assembly, various state courts and federal courts and the Interstate Commerce Commission and Surface Transportation Board. Specific transportation-related testimony I have filed is listed below.

TESTIMONY

January, 1980	In the Matter of the Valuation Proceedings Under Sections 303(c) and 306 of the Regional Rail Reorganization Act. Special Court Misc. No. 76-1
October, 1981	In the Matter of the Valuation Proceedings Under Sections 303(c)and 306 of the Regional Rail Reorganization Act. Special Court Misc. No. 76-1

January, 1986	Oral testimony before the House of Delegates, Commonwealth of Virginia, Courts of Justice Committee
May 15, 1987	I.C.C. Docket No. 38301S - Coal Trading Corporation et al. v. The Baltimore and Ohio Railroad Company et al.
December, 1987	I.C.C. Docket No. 38301S (Sub-No. 1) - Westmoreland Coal Sales Company v. The Denver & Rio Grande Western Railroad Company, et al.
December, 1987	I.C.C. Docket No. 37038 Bituminous Coal -- Hiawatha, Utah to Moapa, Nevada and consolidated proceedings
January 14, 1988	I.C.C. Docket No. 38301S - Coal Trading Corporation et al. v. The Baltimore and Ohio Railroad Company et al.
June 20, 1988	I.C.C. Docket No. 37038 Bituminous Coal -- Hiawatha, Utah to Moapa, Nevada and consolidated proceedings
July, 1989	Oral testimony before the Superior Court of Rhode Island in the matter: National Railroad Passenger Corporation v. DOT, Providence & Worcester Railroad Co. v. RI
July 30, 1990	I.C.C. Docket No. 37038 Bituminous Coal -- Hiawatha, Utah to Moapa, Nevada and consolidated proceedings
October 10, 1990	I.C.C. Docket No. 37063, 38025S - The Dayton Power and Light Company v. Louisville and Nashville Railroad Company
December 14, 1990	I.C.C. Docket No. 37063, 38025S - The Dayton Power and Light Company v. Louisville and Nashville Railroad Company
January 25, 1991	I.C.C. Docket No. 37063, 38025S - The Dayton Power and Light Company v. Louisville and Nashville Railroad Company
July 15, 1991	I.C.C. Docket No. 37038 Bituminous Coal -- Hiawatha, Utah to Moapa, Nevada and consolidated proceedings
April 24, 1992	I.C.C. Finance Docket No. 31951 Southern California Regional Rail Authority For an Order Requiring Joint Use of Terminal Facilities of The Atchison, Topeka and Santa Fe Railway Company

May 7, 1993	I.C.C. Finance Docket No. 21215 (Sub-No. 5) Seaboard Air Line Railroad Company -- Merger -- Atlantic Coast Line Railroad Company -- Petition to Remove Traffic Protective Conditions
June 10, 1994	I.C.C. Finance Docket No. 21215 (Sub-No. 5) Seaboard Air Line Railroad Company -- Merger -- Atlantic Coast Line Railroad Company -- Petition to Remove Traffic Protective Conditions
October 11, 1994	I.C.C. Finance Docket No. 32549 Burlington Northern, Inc. And Burlington Northern Railroad Company -- Control and Merger -- Santa Fe Pacific Corporation and the Atchison, Topeka and Santa Fe Railway Company
March 29, 1995	I.C.C. Docket No. 37809, 37809 (Sub-No. 1) McCarty Farms, Inc., et al., and consolidated proceedings
May 30, 1995	I.C.C. Docket No. 41191 West Texas Utilities Company v. Burlington Northern Railroad Company
October 30, 1995	I.C.C. Docket No. 41185 Arizona Public Service Company and Pacificorp v. The Atchison, Topeka and Santa Fe Railway Company
April 29, 1996	Finance Docket No. 32760. Union Pacific Corporation, Union Pacific Railroad Company and Missouri Pacific Railroad Company -- Control and Merger -- Southern Pacific Rail Corporation, Southern Pacific Transportation Company, St. Louis Southwestern Railway Company, SPCSL Corp., and The Denver & Rio Grande Western Railroad Company.
May 23, 1996	Docket No. 41191. West Texas Utilities Company v. Burlington Northern Railroad Company -- Petition of Burlington Northern Railroad Company to Reopen Proceeding.
October 15, 1996	Docket No. 41242. Central Power & Light Company v. Southern Pacific Transportation Company; Docket No. 41295 Pennsylvania Power & Light Company v. Consolidated Rail Corporation; Docket No. 41626 MidAmerican Energy Company v. Union Pacific Railroad Company and Chicago & North Western Railway Company.
October 25, 1996	Docket No. 41242. Central Power & Light Company v. Southern Pacific Transportation Company; Docket No.

	41295 Pennsylvania Power & Light Company v. Consolidated Rail Corporation; Docket No. 41626 MidAmerican Energy Company v. Union Pacific Railroad Company and Chicago & North Western Railway Company.
July 11, 1997	Docket No. 41989. Potomac Electric Power Company v. CSX Transportation, Inc. Reply Statement and Evidence of Defendant CSX Transportation, Inc.
May 1998	Docket No. 42012, Sierra Pacific Power Company and Iowa Power Company v. Union Pacific Railroad Company
July 1998	Finance Docket No. 33556, Canadian National Railway Company, Grand Trunk Corporation, and Grand Trunk Western Railroad Incorporated -- Control -- Illinois Central Corporation, Illinois Central Railroad Company, and Cedar River Railroad Company.
September 1998	Docket No. 42022, FMC Corporation and FMC Wyoming Corporation v. Union Pacific Railroad Company.
December 1998	Finance Docket No. 33556, Canadian National Railway Company, Grand Trunk Corporation, and Grand Trunk Western Railroad Incorporated -- Control -- Illinois Central Corporation, Illinois Central Railroad Company, and Cedar River Railroad Company.
January 15, 1999	Docket No. 42022. FMC Corporation and FMC Wyoming Corporation, v. Union Pacific Railroad Company. Opening Verified Statement of Christopher D. Kent and Benton V. Fisher.
March 31, 1999	Docket No. 42022. FMC Corporation and FMC Wyoming Corporation, v. Union Pacific Railroad Company. Reply Verified Statement of Christopher D. Kent and Benton V. Fisher. Reply Verified Statement of Christopher D. Kent and John C. Klick.
April 30, 1999	Docket No. 42022. FMC Corporation and FMC Wyoming Corporation, v. Union Pacific Railroad Company. Rebuttal Verified Statement of Christopher D. Kent and Benton V. Fisher.
July 15, 1999	Docket No. 42038. Minnesota Power, Inc. v. Duluth, Missabe and Iron Range Railway Company. Opening

	Verified Statement of Christopher D. Kent and Benton V. Fisher.
August 30, 1999	Docket No. 42038. Minnesota Power, Inc. v. Duluth, Missabe and Iron Range Railway Company. Reply Verified Statement of Christopher D. Kent and Benton V. Fisher.
September 28, 1999	Docket No. 42038. Minnesota Power, Inc. v. Duluth, Missabe and Iron Range Railway Company. Rebuttal Verified Statement of Christopher D. Kent and Benton V. Fisher.
April 15, 2000	Expert Report. IFL Group, Inc., and Contract Air Cargo, Inc. v. Lincoln General Insurance Company.

CERTIFICATE OF SERVICE

I hereby certify that I have this date served the instant document on all participants of record in this proceeding in accordance with section 12 of the Rules of Practice.

August 14, 2000

William B. Baker